

**ADDENDUM NO. 2**  
**TO THE BID DOCUMENTS**  
**Homer Harbor Cathodic Float Protection**  
**CITY OF HOMER, ALASKA**

**Addendum Issue Date:** 9/20/2022

**Bid Submittal Date:** 9/28/2022

**Previous Addenda Issued:** 1

**Issued By:** Janette Keiser, PE  
Public Works Director  
City of Homer

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**Notice to Bidders:**

Bidders must **acknowledge receipt of this Addendum** by including the Addenda Acknowledgement Form with the bid.

Bidders are required to acknowledge each addenda separately on the Addenda Acknowledgement Form. Any bids received without acknowledgment of addenda may be rejected prior to evaluation.

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The Bid Documents for the above project are amended as follows (all other terms and conditions remain unchanged):

**1. Questions from Prospective Bidders:**

**Question #1:** Page 4 of the bid packet, scope of services calls out a total of 655 150lb anodes plus 5 additional, whereas page 19, bid item description anode quantity totals 710 150lb anodes. Which quantity is the accurate total required?

**Answer #1:** The Invitation to Bid, Instructions to bidders and special provisions have been updated to show that the project shall require A) Furnish and Install 614 anodes and B) Furnish 5 additional anodes. The Bid Form has also been modified to reflect the same quantities.

**Question #2:** Is this a Buy America or Buy American project?

**Answer #2:** No.

**Question #3:** I noticed in the bid packet that the EEO-1 certification form and escrow bid documentation are not included but required to be submitted with the bid. Can you please provide? Additionally, the EEO clause form states it is to be submitted with Part B but Section IV “The Bid Package” (page 6 of the bid packet) instructs the bidder to submit the EEO clause form with Part A. Can you please clarify which Part to submit that form with?

**Answer #3:** The escrow bid documentation is to be created by the contractor. The Special Provisions have been updated to include a more thorough description of how to do that. The Instructions to Bidders has been updated to eliminate confusion over what documents are to be submitted with what part of the bid.

**Question #4:** Instructions to Bidders, Section D. Interpretation of Bid Documents conflicts with Part IV. The Bid Package. Acknowledgement of all Addenda on the Addendum Form indicates to be included in Part A in the Bid Package section and Part B in the Interpretation of Bid Documents section. What part must the document be in to be considered a responsive bidder?

**Answer #4:** The Instructions to Bidders have been updated to eliminate confusion over what documents are to be submitted with what part of the bid.

**Question #5:** General Requirement for the NACE Level II cathodic Pre and Post survey are too vague and allow interpretation between vendors for this type of work. Can the City Quantify the number and location of Pre and Post Cathodic Readings they would like for these half-cell surveys?

**Answer #5:** Response: Specification 711.1 General requirements paragraph C states, “... Take readings at each main or headwalk float and at intervals of 200 feet or less.” Which equates to 66 locations. The contractor will need to coordinate the locations with the Owner prior to installing the anodes.

**Question #6:** Will the owner require the Procedure Qualification Report to be in accordance with the newest version of the D3.6-2017 Code and Weld Procedure Specification (WPS) on similar base metal submitted with the submittal for the welder certifications?

**Answer #6:** Yes. The Plans and Special Provisions have been updated to replace references to “D3.6-93” with “D3.6-2017”.

**Question #7:** Does the owner expect the welder candidate to have qualifying WPS welds at least quarterly for the previous year? If not, is it permissible to requalify the welder on the PQR after NTP?

**Answer #7:** The contractor will need to submit current performance qualification records for the relevant welding procedure specifications for review and approval prior to conducting weldment work.

**Question #8:** Will the City be providing a Laydown Yard space for delivery of the anodes and storage prior to installation and for use during operations? Delivery times for materials could be 12 weeks from order, with anticipated operations in spring 2023 for this, space might be needed for up to 5 each 20ft containers, or 45 pallets of anodes which cant be stacked.

**Answer #8:** The City will provide a laydown yard in close proximity to the job site. The contractor will coordinate with the Harbormaster for the exact location of the laydown yard.

- 2. A new Plan set is attached with a revised scope of work.**
- 3. A new Special Provisions section is attached with alterations to SP-2: Scope of Work, SP-9: Escrow Bid Documentation – Anodes and SP-11: Sacrificial Anodes.**
- 4. A new Invitation to Bid is attached with a revision to the description of the scope of work.**
- 5. A new Instructions to Bidders Sections is added with clarification on the bid package parts, revisions to the scope of work and revisions to reflect the change in bid date from the previous addendum.**
- 6. A new Bid Form is attached to reflect the revision in scope of work.**
- 7. A new project schedule is attached to reflect the change in bid to from the previous addendum.**

## INVITATION TO BID

**By the City of Homer, Alaska  
Homer Harbor  
Float Cathodic Protection Project**

Sealed Bids for construction of Homer Boat Harbor Cathodic Protection project will be received by the Office of the City Clerk, 491 E. Pioneer Avenue, Homer, Alaska 99603 until **2:00 p.m., ~~September 21, 2022~~ September 28, 2022** at which time they will be publicly opened. Bids received after the time fixed for receipt of the Bid shall not be considered.

Bid Plans and Specifications are available on the City of Homer's website [www.homer.alaska](http://www.homer.alaska) or by contact: City Clerk, 491 E. Pioneer Avenue, Homer, Alaska 99603; (907) 235-3130

The project consists of furnishing all labor, materials, equipment, tools, supervision, and other facilities necessary to construct the project in accordance with the plans and specifications. The work includes, but is not limited to the following:

Furnishing and installing 614 sacrificial anodes on float piles in the Homer Harbor.

Please direct all technical questions regarding this project to: Janette Keiser, PE, Public Works Director, 907-435-3141.

Small and minority owned businesses are encouraged to participate in this contract. The City of Homer reserves the right to accept or reject any or all bids, and to waive irregularities or informalities in the bids.

Dated this \_\_\_\_ day of September, 2022.

City of Homer

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Rob Dumouchel, City Manager

PUB:

Homer Tribune	9/9/2022 & 9/16/2022
Peninsula Clarion	9/12/2022
Anchorage Daily News	9/12/2022

(Fiscal Note: 415-380)

**INSTRUCTIONS TO BIDDERS**  
**City of Homer, Alaska**  
**Harbor Float Cathodic Protection Project**

The City of Homer, Alaska is requesting bids from qualified firms and individuals for the project described herein.

The following subjects are discussed herein to assist you in the preparation of your bid.

- I. Introduction
- II. Scope of Services
- III. General Bidding Requirements
- IV. The Bid Package
- V. Tentative Project Schedule
- VI. Instructions to Bidders
- VII. Labor Rates
- VIII. Equal Opportunity Employment Certification
- IX. Escalation Clause

**I. Introduction**

The City of Homer requests bids for the Harbor Float Cathodic Protection Project. The purpose of this project is to replace the sacrificial anodes on the floats in the Homer Harbor.

All work activity associated with the project shall be completed by May 31, 2022.

**II. Scope of Services**

The proposed work is located within the limits of the City of Homer and is illustrated on the plans entitled Homer Boat Harbor Cathodic Protection.

The project consists of furnishing all labor, materials, equipment, tools, supervision and other facilities necessary for the performance of the work described herein and shown on the project drawings. The work includes, but is not limited to furnishing and installing a total of 614 150 lb, furnishing 5 additional 150 lb anodes for stockpiling and completing a half cell survey and report letter.

**III. General Bidding Requirements**

The work must be performed by a Contractor skilled and regularly engaged in the type of work called for under the Contract. Bidders must have a current contractor's license issued by the State of Alaska. The license must apply to the work described in the Invitation. The City's local bidder preference requirements apply to this contract. State prevailing wage rates will apply.

An electronic copy of Plans and Specifications is available on the City's website <http://www.cityofhomer.ak.gov/rfps> or you may purchase hard copies at the Office of the City Clerk upon payment of \$100 per set (\$150 for overnight delivery). City of Homer Standard Construction Specifications 2011 Edition (containing general contract provisions) may also be downloaded from the city's website. All fees are non-refundable. The City of Homer reserves the right to accept or reject any or all bids, to waive irregularities or informalities in the bids, and to award the contract to the lowest responsive, responsible bidder.

**Performance and Payment bonds** in the amount of 100 percent (100%) of the bid amount are required.

Bids must be submitted on the Bid Form and be received by **2:00 PM on September 28, 2022** at the Office of the City Clerk, City of Homer 491 E. Pioneer Avenue, Homer, Alaska, 99603. **A bid bond is required.** Cashier checks in an amount equal to five percent (5%) of the bid are acceptable. Surety bonds are acceptable.

**A Pre-Bid Meeting will be held at 2:00 p.m. on Wednesday, September 14, 2022** at the Cowles Council Chamber, City Hall 491 E Pioneer Ave Homer, Alaska 99603. This meeting will be conducted simultaneously via Zoom. Invitations will be distributed to all bidders listed on the Plan Holder's List maintained by the City Clerk's Office.

A Site Visit will be conducted immediately following the meeting.

#### **IV. The Bid Package**

**The City of Homer requires a two-part Bid Package, Part A and Part B. Each portion of the Bid Package must be submitted in separate envelopes, which shall be combined into one single Bid Package, marked with the name of the project and the time/date of the bid opening.**

**At the bid opening, Part A is opened first and must be complete or Part B will not be opened and the bid will be rejected.**

**Part A** of the bid contains:

- a. Addenda Acknowledgment Form
- b. If signature on the Bid is by an agent, other than an Officer of a Corporation, or of a member of a Co-partnership, a Power of Attorney must be submitted in Part B.
- c. EEO-1 Certification
- d. EEO Clause

Part B of the bid contains.

**Part B** of the bid contains:

- a. Bid Form
- b. Bid Bond
- c. Escrow Bid Documentation

Both parts of the bid **must** be submitted with the bid package in separate envelopes marked "Part A" and "Part B".

## **V. Tentative Project Schedule**

- |                             |                                 |
|-----------------------------|---------------------------------|
| • Pre-bid Conference        | 2:00 p.m. on September 14, 2022 |
| • Bids Due                  | 2:00 p.m. on September 28, 2022 |
| • Notice of Intent to Award | September 30, 2022              |
| • Award by City Council     | October 10, 2022                |
| • Notice to Proceed         | October 11, 2022                |
| • Pre-Construction Meeting  | October 17, 2022                |
| • Start Construction        | October 24, 2022                |
| • Contract Completion       | May 31, 2023                    |

## **VI. Instructions to Bidders**

The City of Homer intends to award the contract to the lowest responsive, responsible bidder but reserves the right to accept or reject any or all proposals, to waive irregularities or informalities in the bids or bid process, and to award the contract to the bidder that best meets the criteria stated below.

### **A. Qualification of Bidders**

It is the intention of the City of Homer to award this contract to the Bidder who furnishes satisfactory evidence they have the requisite experience, ability and sufficient capital, facilities and plant to prosecute the work successfully (and properly) and to complete it within the time allowed in the Contract at the least cost to the City of Homer for dollars spent for value received. Bidders will be required to fill out a questionnaire attesting to their qualifications.

### **B. Taxes**

Attention is directed to the requirements of the General Conditions regarding the payment of taxes. All taxes that are lawfully assessed against Owner or Contractor in connection with the work shall be paid by the Contractor. The Bid prices shall include all such taxes.

The City of Homer is exempt from local sales taxes. The Contractor shall not include sales tax markup in his bid. However, in order to recoup sales tax the Contractor might pay at local vendors, the Contractor must secure a Tax Exempt card from the Kenai Peninsula Borough Tax Department.

### **C. Familiarization with the Work**

Before submitting its Bid, each prospective Bidder shall familiarize itself with the work, labor conditions and all laws, regulations and other factors affecting performance of the work. Bidders shall carefully correlate their observations with the requirements of the Contract Documents and otherwise satisfy themselves of the expense and difficulties attending performance of the work. The submission of a Bid shall constitute an acknowledgement that the Bidder has thoroughly examined and is familiar with the Contract Documents and the provisions thereof. The failure or neglect of a Bidder to receive or examine any of the Bid Documents shall in no way relieve the bidder from any obligations with the respect to their Bid or to the Contract.

Misinterpretation or a reputed lack of knowledge concerning the Bid will not serve as a basis for a claim for additional compensation.

Each Bidder shall visit the site of the work and completely inform themselves relative to construction hazards and procedures, the availability of lands, the character and quantity of surface and subsurface materials and utilities to be encountered, the arrangement and conditions of existing structures and facilities, the procedure necessary for maintenance of uninterrupted operations of existing facilities, the character of construction equipment and facilities needed for performance of the work, and facilities for transportation, handling and storage of materials and equipment. All such factors shall be properly investigated and considered in the preparation of the Bid.

#### **D. Interpretation of Bid Documents**

All questions about the meaning or intent of the Contract Documents shall be submitted to the Office of the Director of Public Works in writing. Replies will be issued by Addenda and delivered to all parties recorded by the City Clerk's Office as having received the Bidding documents. **The City of Homer will not be held responsible for questions received less than (5) calendar days prior to the date of opening of Bids.** Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

**The Bidder shall acknowledge receipt of all Addenda on the Addendum Form, which shall be properly signed by the Bidder and placed in Part A.**

It shall be the Bidder's responsibility to inquire as to addenda issued. **Failure to include the Addenda Form in Part A of the Bid Package shall result in the Bid being rejected as non-responsive.**

#### **E. Bid Bond**

Each Bid shall be accompanied by a Bid Bond duly completed on the suggested form provided by a guaranty company authorized to conduct business in the State of Alaska, along with a General Power of Attorney form, if applicable, for payment to the City in the sum of five percent (5%) of the total amount of the Bid. **Failure to include the Bid Bond in Part A of the Bid Package shall result in the Bid being rejected as non-responsive.**

The amount payable to the City under the Bid Bond or the certified or cashier's check, as the case may be, shall be forfeited to the City in case of a failure or neglect of the Bidder to furnish, execute, and deliver to the City required Performance and Payment Bonds, Evidences of Insurance, necessary forms or material required by the Bid or failure to enter into, execute and deliver to the City the Contract on the form provided therefor, **within ten (10) working days after receipt of "Notice of Intent to Award Contract"** by the City that the Contract is ready for execution. The "Award of Contract" will be made upon the execution of the Contract by the Bidder and the City.

#### **F. Return of Bid Guarantee**

Within thirty (30) days after the Bids are opened, the City will return the Bid Guarantees accompanying the Bids, which are not to be considered in making the award. The bid Guarantees of the three (3) lowest



responsive Bids will be held until the Contract has been fully executed after which time the Guarantees will be returned to the respective Bidders whose Bids the Guarantees accompanied.

#### **G. Contract Time**

The Contract Time is an essential part of the Contract and it will be necessary for each Bidder to satisfy the City of his ability to complete the work within the time set forth in the Bid form. Provisions for delays, liquidated damages, and extensions of time are set forth in the Standard Construction Specifications. Time is of the essence in this contract.

#### **H. Preparation of Bids**

Bids must be submitted on the forms provided by the City and completed in all respects as required by the Bid Documents. Bids shall include all information requested herein, and be manually signed by the Bidder or the Bidder's duly authorized representative, with the Bidder's address and phone number. If the signature is by an agent, other than an Officer of a Corporation, or a member of a Co-partnership, a Power of Attorney must be submitted in Part A of the Bid; otherwise, the Bid will be rejected as non-responsive. **All Bids must be regular in every respect, and no alterations shall be made to the Bid form.**

If erasures or changes appear on the forms, each must be initialed by the person signing the Bid. No oral, telegraphic, electronic or telephone proposals will be considered.

Bid Packages, containing separate envelopes for Part A and Part B of the bid, will be received at the City Clerk's Office located at City Hall 491 East Pioneer Avenue, Homer, Alaska 99603, until the time indicated on the Invitation to Bid. Each Bid shall be submitted enclosed in a sealed, opaque envelope. **The envelope shall have the Bid title and date of Bid opening on the lower left-hand corner of the Bid Package.** The City is not responsible for the premature opening of, or failure to open, a bid not properly addressed and identified.

No consideration will be given by the City to a claim or error unless such claim is made to the City in writing within two (2) hours after the time of Bid opening. Written verification and supporting evidence of the error shall be delivered to the City Clerk within 24 hours of the Bid Opening (not including Saturday, Sunday or legal holidays) to allow consideration of the claim for error. Supporting evidence shall be original documents, including cost breakdown sheets, supplier quotes and other documents used to compute the Bid.

It is the bidder's responsibility to see that Bid Packages are deposited at the time and place set forth for the public opening of Bids. Bids not received by the time will not be considered responsive and shall not be considered.

### **VII. Labor Rates**

#### **A. State Labor Rates.**

This project is covered by the State of Alaska Title 36 Laborer's and Mechanic's Minimum Rate of Pay (AS 36.05.010 & 36.05.050) Pamphlet No. 600, Issue 42, Effective April 1, 2021. It is the responsibility of

the bidder to determine the current rates of pay required and to submit the proper certified payrolls to the State Department of Labor

#### **VIII. Equal Opportunity Employment**

Bidders must submit forms related to Equal Employment Opportunity with their bids, including:

- EEO-1 Certification
- EEO Clause

#### **IX. Escalation Clause**

The Contractor may request a cost adjustment for the anodes if the actual, documented difference between the total costs for all anodes on bid date and the total costs for all anodes on the date of purchase is more than 5% of the documented costs on bid date. The cost adjustment will be based on the documented difference in material costs only and shall not be subject to any markups, shipping or other incidental charge.

The Contractor shall use its best efforts to minimize material cost increases by employing industry – standard procurement strategies.

The Contractor shall submit, with its bid, information documenting the total cost of all anodes it intends to use on the project. **This cost information shall be placed in a separate envelope, sealed and marked *ESCROW BID DOCUMENTATION – ANODES* and submitted with PART B of the Bid Package.** This information will only be opened if the Contractor requests a cost adjustment for the anodes and will serve as documentation of the total cost of all anodes on the date of purchase.

No request for cost adjustment will be allowed if the **ESCROW BID DOCUMENTATION – ANODES** is not included with the bid or does not sufficiently document the total cost of all anodes.

# **Project Schedule**

## **Harbor Floats Cathodic Protection**

Advertise	Homer News	9/1/2022, 9/8/2022
	Peninsula Clarion	9/4/2022
	Anchorage Daily News	9/4/2022
Pre-Bid Site Meet via Zoom Cowles Council Chambers followed immediately by Site Visit		2:00 p.m. September 14, 2022
Bids Due		2:00 p.m. September 28, 2022
Notice of Intent to Award		September 30, 2022
Council Award		October 10, 2022
Notice to Proceed		October 11, 2022
Pre-Construction Meeting		October 17, 2022
Start Construction		October 24, 2022
Construction Complete		May 31, 2023

## **SPECIAL PROVISIONS**

### **Homer Harbor Float Cathodic Protection**

The construction contract for this project will be administered in accordance with the General Provisions of the City's Standard Construction Specifications (2011).

## **MODIFICATIONS TO GENERAL PROVISIONS**

### **SP - 1: Section 10.02 - Add New Article 2.6 – Equal Employment Opportunity**

Contractor shall be in compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity", as amended by Executive Order 11375 of October 13, 1967, and as supplemented in U.S. Department of Labor regulations (41 CFR Chapter 60).

### **SP - 2: Section 10.04 – Add New Article 4.6 – Scope of Work**

The Work included under this Contract consists of furnishing all labor, materials, equipment, supervision, and other facilities necessary to successfully complete the Work set forth in the drawings, specifications, and the terms of the Contract, including, but not limited to the following work:

- Furnish and install a total of 614 150lb anodes
- Furnish 5 additional anodes for stockpiling
- Half cell survey and letter report

### **SP - 3: Section 10.05- Modify Article 5.28 – Limitations of Operations**

Add the following language:

"Work on this project shall only occur between the dates of October 1 and May 31."

### **SP - 4: Section 10.05 – Add New Article 5.38 – Coordination of Work with Ongoing Activities**

Contractor shall coordinate with the Harbormaster to minimize conflict with adjacent harbor users and head walk/float pedestrian traffic. The Contractor shall be responsible for limiting access to the actual job site, including if necessary the installation of barricades and caution tape/danger tape along the perimeter of the work area and around any material storage areas if necessary.

The City will conduct a weekly project coordination meeting with the Contractor during the duration of the project to be held at the Homer Harbormasters Office conference room.

Any damage to the existing City property during the course of construction caused by the Contractor or their Sub-Contractors will be repaired/replaced by the Contractor to the acceptance of the Engineer before final payment will be made on this Contract.

**SP – 5: Section 10.06 – Modify Article 6.1 – Laws to be Observed**

Add the following language:

“Contractor shall be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).”

**SP – 6: Section 10.06 – Modify Article 6.5 – Industrial Safety**

Add the following language:

“The City requires that the Contractor and all Sub-Contractors provide a well-developed Activity Hazard Analysis for all definable features of work on this project a minimum of 72 hours before the work is to take place. All plans will be reviewed and approved by the City before the Contractor will be allowed to proceed with the work. The Contractor will hold a jobsite safety meeting at a minimum of once a month during the course of construction. The Contractor will be responsible for the Sub-Contractors’ safe work practices at all times during the duration of this project. The City will maintain and enforce the most current issue of O.S.H.A standards.”

**SP – 7: Section 10.06 – Modify Article 6.18 – Insurance**

Add the following language:

“The Contractor shall provide the following types of insurance prior to starting work (see General Conditions - Article 6.18 – Insurance). All Insurance Certificates shall name “City of Home, Alaska” and “The State of Alaska” as an additionally insured party. Contractor will also include a provision that the “Department of Transportation and Public Facilities” along with the “State of Alaska” not be liable for damages or claims from damages arising from any contractor’s performance or activities in connection with work authorized by the projects Grant Agreement.”

Replace existing language in subsection “**b. The Contractor shall provide the following types of insurance:**” with:

<b>“1. <u>Worker’s Compensation</u></b>	<b><u>Minimum Limits</u></b>
Employer’s Liability and Workers’ Compensation	Statutory
as required by Alaska State Workers’ Compensation statutes.	(no less than \$100K per occurrence)

U.S. Longshoremen & Harbor Workers' (USL&H).

2. <u>Comprehensive General Liability</u>	<u>Minimum Limits</u>
Single Limit	\$1,000,000
Aggregate	\$2,000,000
<ul style="list-style-type: none"><li>• Bodily Injury &amp; Property Damage Liability</li><li>• Premises Operations</li><li>• Blanket Contractual</li><li>• Broad Form Property Damage</li><li>• Personal Injury</li><li>• Independent Contractors</li></ul>	
3. <u>Comprehensive Automobile Liability</u>	<u>Minimum Limits</u>
Bodily Injury and Property Damage, including all owned, hired and non-owned vehicles."	\$1,000,000

**SP – 8: Section 10.07 – Modify Article 7.6 – Progress Payments**

Remove the following language:

"Until such time as the work is accepted by the City, retainage shall be withheld in accordance with the following schedule:

<b>Contract Completion Percentage</b>	<b>Retainage Percentage</b>
<b>0-75%</b>	<b>10%</b>
<b>76-95%</b>	<b>5%*</b>
<b>Over 95%</b>	<b>5%*</b>

\*May be reduced to these percentages depending upon satisfactory performance and adherence to the Contractor's progress schedule, clean-up, Contract completion cost and other factor, in the judgement of the Engineer."

And replace with:

"Until such time as the work is accepted by the City, 10% of the final payment application shall be withheld as retainage."

**SP – 9: Section 10.07 – Add New Article 7.13 – Materials Cost Adjustment – Anodes**

The Contractor may request a cost adjustment for the anodes if the actual, documented difference between the total costs for all anodes on bid date and the total costs for all anodes on the date of purchase is more than 5% of the documented costs on bid date. The cost

adjustment will be based on the documented difference in material costs only and shall not be subject to any markups, shipping or other incidental charge.

The Contractor shall use its best efforts to minimize material cost increases by employing industry – standard procurement strategies.

No cost adjustment will be allowed for any other material or item of work.

#### **SP – 9: Section 10.07 – Add New Article 7.14 – Escrow Bid Documentation – Anodes**

The Contractor shall submit, with its bid, information documenting the total cost of all anodes it intends to use on the project. **This cost information shall be placed in a separate envelope, sealed and marked *ESCROW BID DOCUMENTATION – ANODES* and submitted with PART B of the Bid Package.** The Escrow Bid Documentation shall be created by the bidder and formatted as the bidder wishes, but **must include:**

1. A description of the materials purchased
2. The vendor(s) the materials were purchased from
3. A name, phone number and email address for an appropriate contact with each vendor.
4. The quantity of materials purchased from each vendor
5. The unit price for each material
6. The total price of all materials purchased
7. Attach any quotes, invoices or receipts documenting the purchase of the materials.

This information will only be opened if the Contractor requests a cost adjustment for the anodes and will serve as documentation of the total cost of all anodes on the date of purchase.

No request for cost adjustment will be allowed if the **ESCROW BID DOCUMENTATION – ANODES** is not included with the bid or does not sufficiently document the total cost of all anodes.

### **MODIFICATIONS TO STANDARD SPECIFICATIONS**

#### **SP – 11: Add New Section 711 – Sacrificial Anodes**

##### **711.1 General**

This specification covers the work necessary to furnish and install a complete, operating, sacrificial anode cathodic protection system on pipe piles and steel grid framing as shown on

the plans and as specified herein. Sacrificial anodes will be welded to the piling by Association of Diving Contractors International (ADCI) certified commercial divers.

References:

- A. The publications listed below form a part of this specification to the extent referenced, current edition. The publications are referred to in the text by basic designation only:

ASTM INTERNATIONAL (ASTM)

ASTM B418              Cast and Wrought Galvanic Zinc Anodes

AMERICAN WELDING SOCIETY (AWS)

AWS-D3.6M            Class B Welding Standards

AWS D1.1/D1.1M      Structural Welding Code—Steel

NACE INTERNATIONAL (NACE)

NACE RP0387          Metallurgical and Inspection Requirements for Cast Galvanic  
Anodes for Offshore Applications

SSPC SP-10            Near White Metal Blast Cleaning (for anode fabrication)

ASSOCIATION OF DIVING CONTRACTORS INTERNATIONAL (ADCI)  
Commercial Diving Consensus Standards

Submittals:

- A. Schedule and work plan.
- B. Manufacturer Certificate of Conformity. Proof that the materials furnished under this section conform to the specified requirements contained in the NACE RP0387. The label or listing by the specified agency will be acceptable evidence of such compliance.
- C. Metallurgical analysis on samples from each heat or batch of anodes used on this project. The Contractor shall also submit a manufactures data sheet outlining the current output, consumption rate, and open circuit potential of the anodes.
- D. Certificates of insurance including US harbor and Longshoreman's Act Coverage.
- E. Diver certifications including Association of Diving Contractors International ADCI commercial diving certification.
- F. Welder certifications including wet welding to AWS D3.6-2017 class B standards and AWS D1.1 for the position and procedure performed.
- G. Half-cell survey before and after construction and letter report prepared by a certified NACE level II cathodic protection technician or higher.
- H. Video of underwater inspection of the completed installation. Video shall be submitted on a CD or other approved electronic media.
- I. As built drawings documenting the location of all anodes installed.



General Requirements:

- A. Sacrificial aluminum anodes shall be welded to all float piling and to the identified outboard piling on the approach trestles.
- B. All welding shall be done by welders certified for the level of work to be performed.
- C. Prior to commencing construction the contractor shall conduct a cathodic protection half-cell survey of the project site. This survey shall be completed by someone with a NACE level II cathodic protection technician or higher certification. Readings shall be taken at each main or headwalk float and at intervals 200 feet or less.
- D. After the anodes are installed the contractor shall video the completed installation. This shall be done for each anode.
- E. Following completion of construction allow at least 2 weeks for system polarization. The contractor shall then conduct another cathodic protection half-cell survey of the project site at locations close to the initial survey. The results of the pre and post survey shall be reported in a letter to the owner.

Diver Qualifications:

Anodes welded to the float piling shall be installed by divers. Diving operations shall meet the requirements as outlined in the Association of Diving Contractors international (ADCI) Consensus Standards. Divers and support personnel must be certified by this organization for the level of work to be performed.

**711.2 Materials**

Aluminum Anodes:

- A. Anodes shall have the minimum weights and maximum length dimensions as shown on the plans. Anodes shall be cast from aluminum alloy having a current capacity of not less than 1150 Amp hr/lb and a consumption rate of not more than 7.6 lb/amp-year. The open circuit potential with reference to a silver-silver chloride electrode shall be between -1.05 volts.
- B. The anodes shall conform to the following standards:
  - a. ASTM B418 Cast and Wrought Galvanic Zinc Anodes.
  - b. NACE RP0387 Metallurgical and Inspection Requirements for Cast Galvanic Anodes for Offshore Applications.
- C. Anodes shall be Galvalume 3 or equal and shall have the following material composition:

Element	Percent by Weight
Zinc	2.8 - 6.5%
Silicon	0.08 – 0.2%
Iron	0.12% (max)
Cadmium	0.002% (max)

Mercury	0.001% (max)
Tin	0.001% (max)
Indium	0.014 - 0.020%
Copper	0.006% (max)
Aluminum	Balance

- D. The core shall be 2-inch x 3/8-inch thick mild steel bar stock. It shall be placed longitudinally and extend from each end of the anode as shown in detail 5 of the plans. The core shall be free of surface oxides such as rust or other coatings. The steel core shall be abrasive blasted to near white finish in accordance with SSPC SP-10 and cast with the anode material within four hours of blasting. Holes, 3/4-inches in diameter, shall be drilled in the core on 4-inch centers in the area where it is contained in the anode.
- E. The anodes shall be supplied in the weights shown on the plans. The listed weights shall be the weight of the anode material not including the core.
- F. The Contractor shall submit metallurgical analysis on samples from each heat or batch of anodes used on this project. The Contractor shall also submit a manufactures data sheet outlining the current output, consumption rate, and open circuit potential of the anodes.

### **711.3 Construction**

#### **Anode Storage:**

- A. Anodes shall be stored in such a manner to protect anodes from inclement weather either in a building or if not anodes shall be covered by tarps or similar protection.

#### **Anode Installation:**

- A. Unless otherwise authorized, installation shall not proceed without the presence of the Owner's Representative. Anodes of the size specified shall be installed to the depth indicated and at the locations shown. Locations may be changed to clear obstructions with the approval of the Owner's Representative.
- B. Install float pile anodes near the mudline and ensure that they do not interfere with the pile collars as the floats move through the full tide cycle.
- C. Grind localized area of pile coating prior to installation to ensure metallic contact between anode and pile. Bend anode tabs and install aluminum anodes by diver, as indicated on the contract drawings.
- D. Welding Methods. For coated piling, remove a small area of coating prior to welding. For aluminum anodes installed above the low tide line, weld according to AWS D1.1/D1.1M. For aluminum anodes to be installed below the low tide line, wet weld to AWS-D3.6 Class B standards using a diver.

#### **711.4 Method of Measurement**

- A. Payment for furnishing and installing aluminum anodes will be made at the contract unit price per each acceptable aluminum anode actually furnished and installed, complete and in place including all weldments, diving, and other items required to completely install the cathodic protection systems as indicated herein.
- B. Payment for half-cell survey and letter report shall include to the pre and post construction surveys and the letter report and is incidental to the above furnish and install anode bid item.

#### **711.5 Basis of Payment**

The quantities, determined as provided above, shall be paid for each of the particular pay items listed below that is shown in the Bid Schedule. Payment shall be made on the following basis:

<b><u>Item</u></b>	<b><u>Description</u></b>	<b><u>Pay Unit</u></b>
711A	Furnish and Install 150-lb Aluminum Anode	EA

<b><u>Item</u></b>	<b><u>Description</u></b>	<b><u>Pay Unit</u></b>
711B	Half Cell Survey and Letter Report	LS

**BID FORM****Homer Harbor Float Cathodic Protection**

ITEM NO.	SPEC NO.	Plan Detail	BID ITEM DESCRIPTION	UNIT	QTY	UNIT BID PRICE	TOTAL BID PRICE
1	101	NA	Mobilization/Demobilization	LS	1		
2	711A	1	Furnish and Install 150 lb Anodes (12 ¾" float pilings)	EA	262		
3	711A	1	Furnish and Install 150 lb Anodes (16" float pilings)	EA	276		
4	711A	2	Furnish and Install 150 lb Anodes (20" float pilings)	EA	36		
5	711A	3	Furnish and Install 150 lb Anodes (12 ¾" trestle pilings)	EA	3		
6	711A	3	Furnish and Install 150 lb Anodes (16" trestle pilings)	EA	11		
7	711A	4	Furnish and Install 150 lb Anodes (24" trestle pilings)	EA	26		
8	711A	NA	Furnish additional Anodes	EA	5		
9	711B	NA	Half Cell Survey Report Letter	LS	1		

**Grand Total All Bid Items: \$**\_\_\_\_\_

Name of Bidding Company\_\_\_\_\_

Address of Bidding Company\_\_\_\_\_

Signature of Company Representative \_\_\_\_\_ Date \_\_\_\_\_

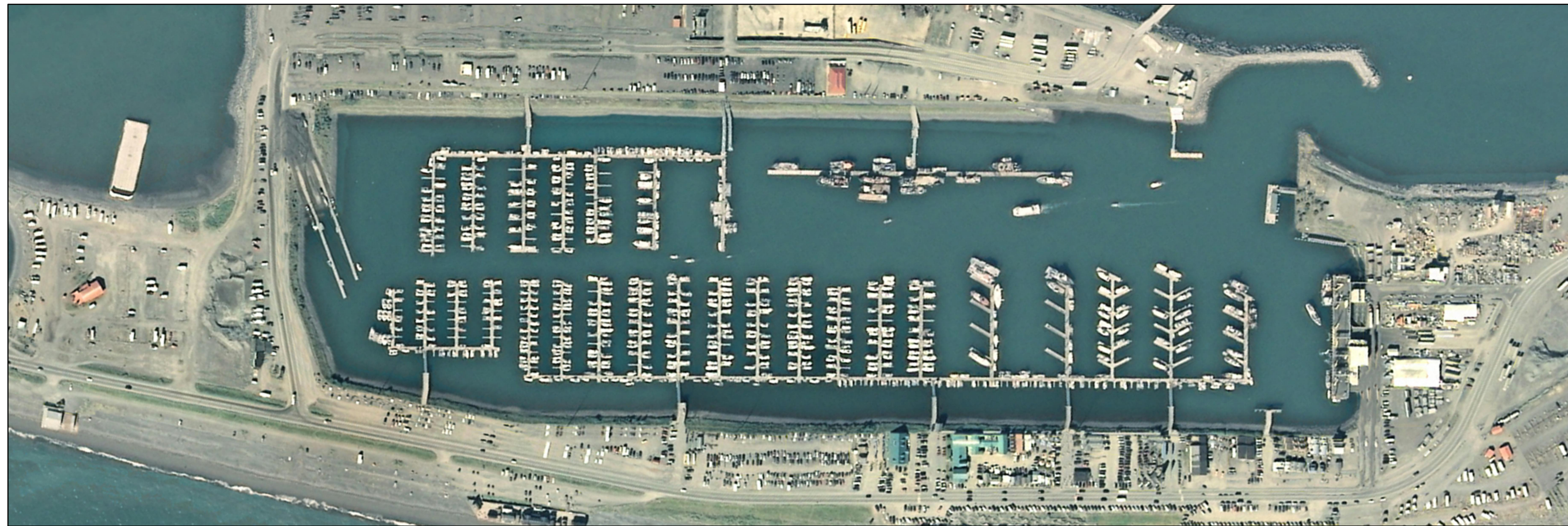
Printed Name of Company Representative\_\_\_\_\_

Phone#/Email\_\_\_\_\_



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# HOMER BOAT HARBOR CATHODIC PROTECTION HOMER, ALASKA

~~8-25-2022~~ REV 1 9-8-2022



**KEN CASTNER**  
MAYOR • CITY OF HOMER

**ROB DUMOUCHEL**  
CITY MANAGER • CITY OF HOMER

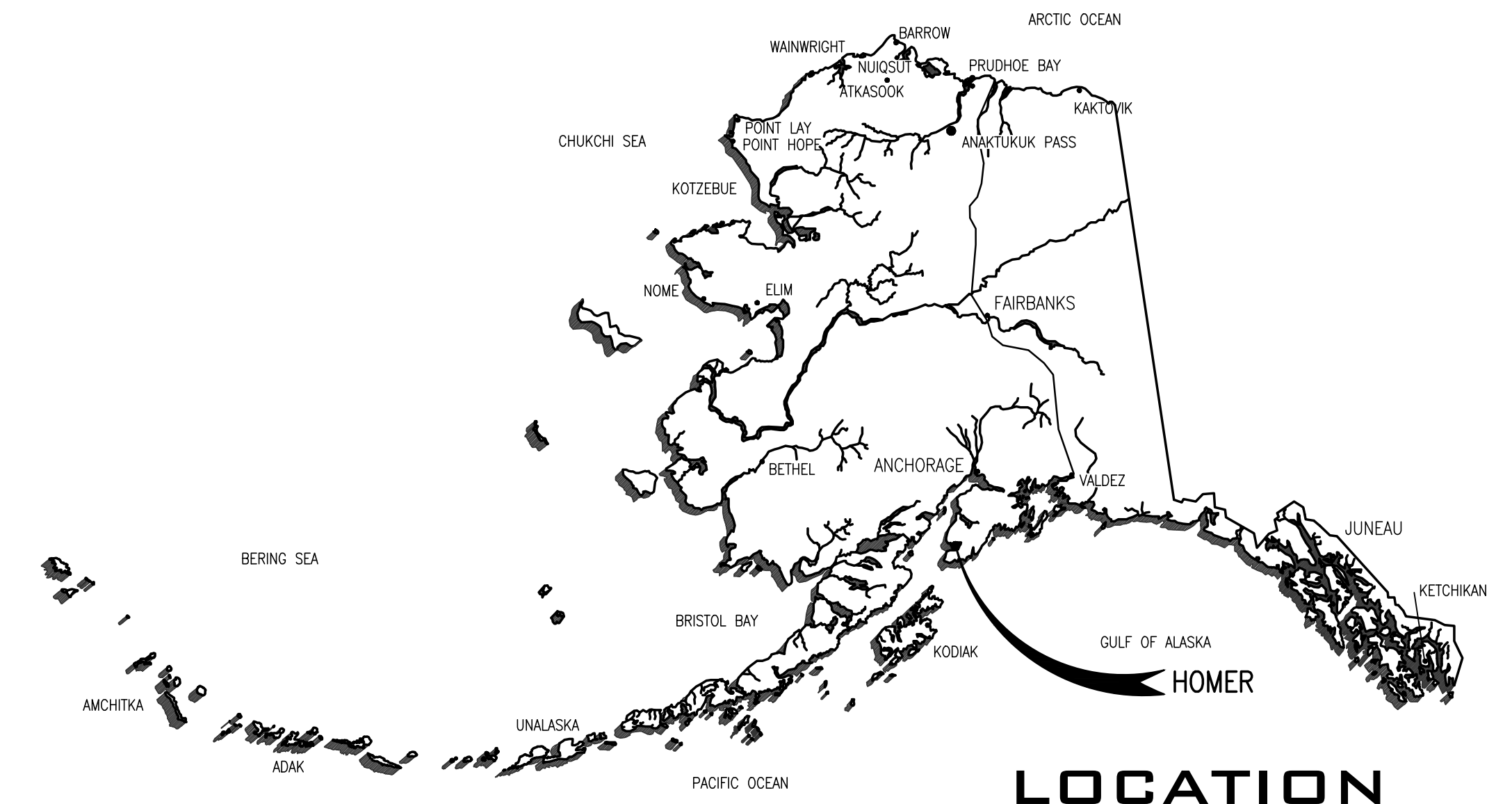
**BRYAN HAWKINS**  
PORT & HARBOR DIRECTOR • CITY OF HOMER

Designed By:

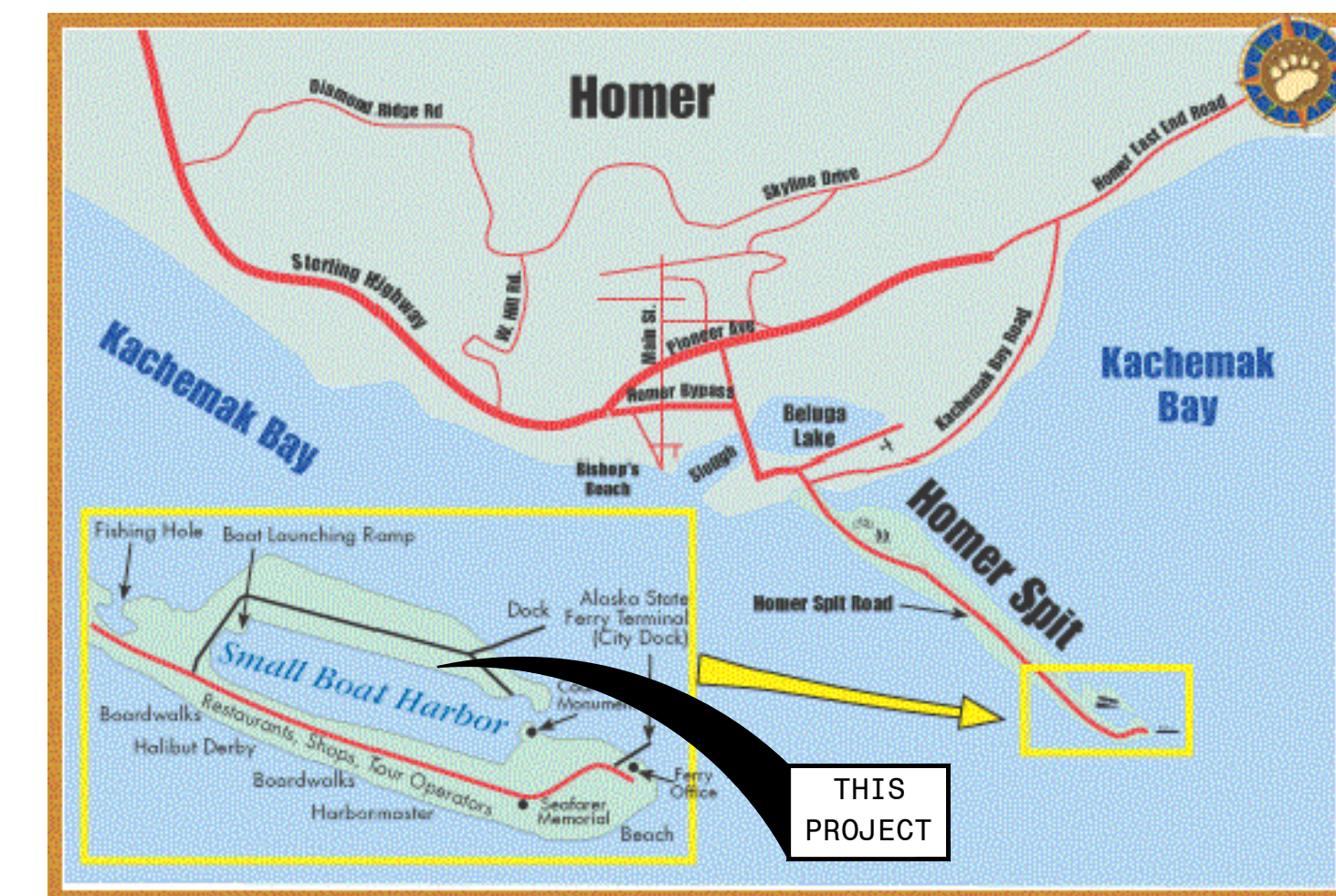


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Anchorage, Alaska 99507  
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**LOCATION**



**VICINITY**

## INDEX OF DRAWINGS

SHT	TITLE
G 1	TITLE SHEET
G 2	GENERAL NOTES AND ANODE DETAILS
G 3	HOMER HARBOR SITE PLAN



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## GENERAL NOTES

### SCOPE OF WORK:

THE SCOPE OF WORK ENCOMPASSES FURNISHING AND INSTALLING ALUMINUM ALLOY SACRIFICIAL ANODES AT THE LOCATIONS INDICATED FOR THIS PROJECT.

- PRIOR TO CONSTRUCTION CONDUCT A  $\frac{1}{2}$  CELL SURVEY PERFORMED BY A NACE LEVEL 2 OR HIGHER TECHNICIAN.
- PROVIDE GALVALUME 3 TYPE OF ALUMINUM ALLOY ANODES OR EQUAL.
- DIVING OPERATIONS SHALL BE AS OUTLINED BY ASSOCIATION OF DIVING CONTRACTORS INTERNATIONAL (ADCI) CONSENSUS STANDARDS. DIVERS SHALL BE CERTIFIED BY THIS ORGANIZATION FOR THE LEVEL OF WORK THEY ARE PERFORMING.
- UNDER WATER WELDING SHALL BE PER AWS D3.6 CLASS B. ABOVE WATER WELDERS SHALL BE AS PER AWS D1.1. WELDERS SHALL BE CERTIFIED IN THE PROCESS USED.
- NOTIFY OWNER'S REPRESENTATIVE 48 HOURS MINIMUM PRIOR TO FIELD WORK. ALLOW ACCESS TO OWNER'S REPRESENTATIVE AS REQUIRED FOR INSPECTIONS.
- CONDUCT A POST INSTALLATION  $\frac{1}{2}$  CELL SURVEY 2 WEEKS AFTER INSTALLATION. THE SURVEY SHALL BE CONDUCTED BY A NACE LEVEL 2 OR HIGHER TECHNICIAN. THIS SHALL BE AT LOCATIONS CLOSE TO THE PRE-CONSTRUCTION SURVEY. SUMMARIZE THE RESULTS OF THE PRE AND POST CONSTRUCTION SURVEYS IN A LETTER REPORT.

### REFERENCES

THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION. ALL REFERENCES AND STANDARDS LISTED SHALL BE THE LATEST REVISIONS.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 418 CAST AND WROUGHT GALVANIC ZINC ANODES

ASSOCIATION OF DIVING CONTRACTORS INTERNATIONAL (ADCI)  
CONSENSUS STANDARDS

AMERICAN WELDING SOCIETY (AWS)

AWS-D3.6M CLASS B WELDING STANDARDS  
AWS D1.1/D1.1M STRUCTURAL WELDING CODE-STEEL

NACE INTERNATIONAL (NACE)

NACE RP0387 METALLURGICAL AND INSPECTION  
REQUIREMENTS FOR CAST GALVANIC ANODES  
FOR OFFSHORE APPLICATIONS AND OTHER  
ITEMS

### ALUMINUM ANODES

A. ALUMINUM ANODES SHALL BE GALVALUME 3, OR EQUAL. ANODES SHALL HAVE THE FOLLOWING PROPERTIES:

- ENERGY CAPACITY NOT LESS THAN 1150 AMP-HOUR PER POUND.
- A CONSUMPTION RATE OF NOT MORE THAN 7.5 POUNDS PER AMP YEAR.
- AN OPEN CIRCUIT POTENTIAL OF MORE THAN  $-1.05$  VOLTS

### TIDE LEVELS

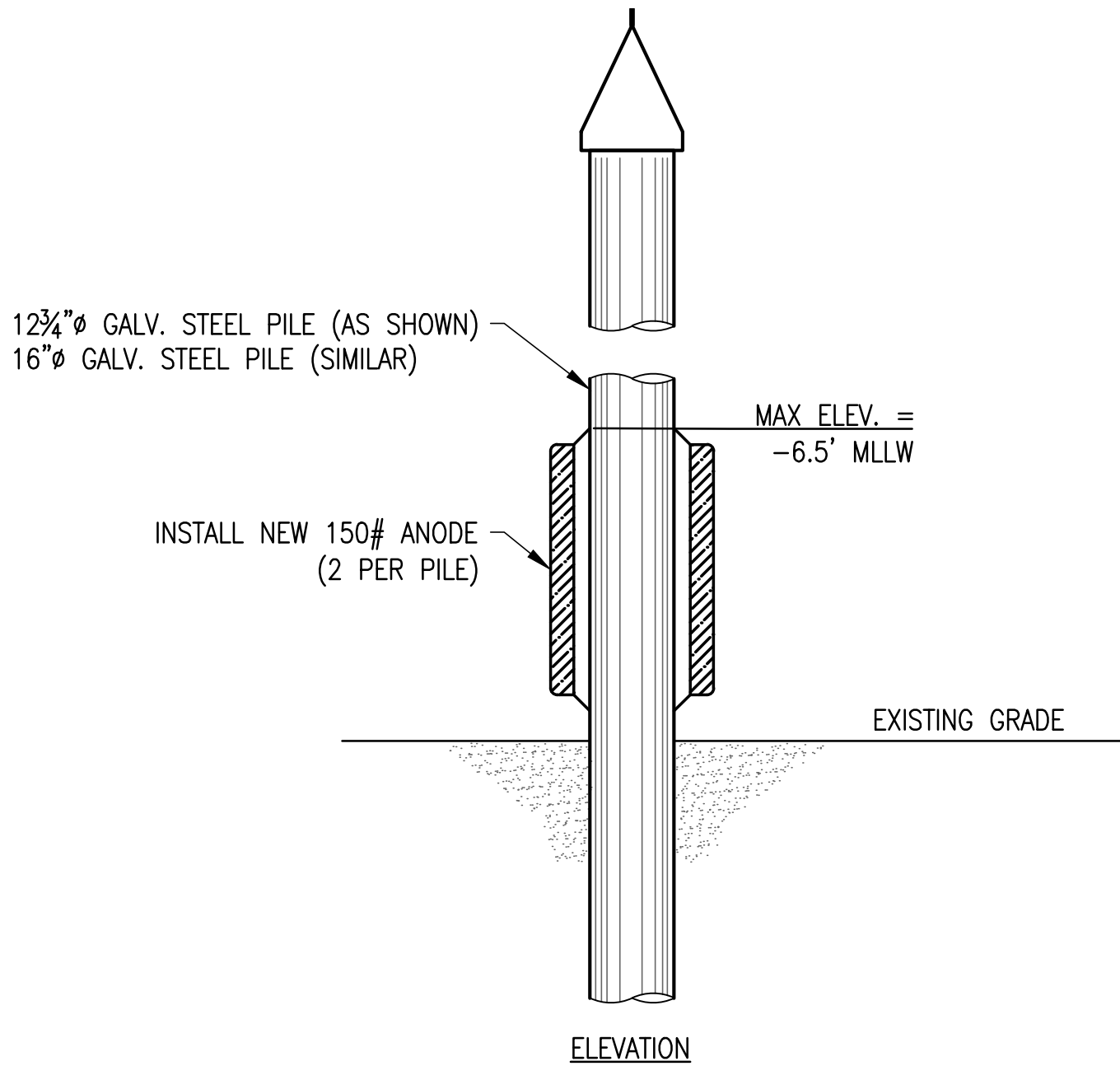
NOAA STATION# 9455500 SELDOVIA, ALASKA TIDAL LEVELS - ELEVATION DATUM FOR THIS PROJECT IS 0.00 FEET = MEAN LOWER LOW WATER.

HIGHEST OBSERVED	+25.62 FT.
MEAN HIGHER HIGH WATER (MHHW)	+18.04 FT.
MEAN HIGH WATER (MHW)	+17.23 FT.
MEAN TIDE LINE (MTL)	+9.46 FT.
MEAN LOW WATER (MLW)	+1.69 FT.
MEAN LOWER LOW WATER (MLLW)	+0.00 FT.
LOWEST OBSERVED	-6.45 FT.

## SUBMITTALS

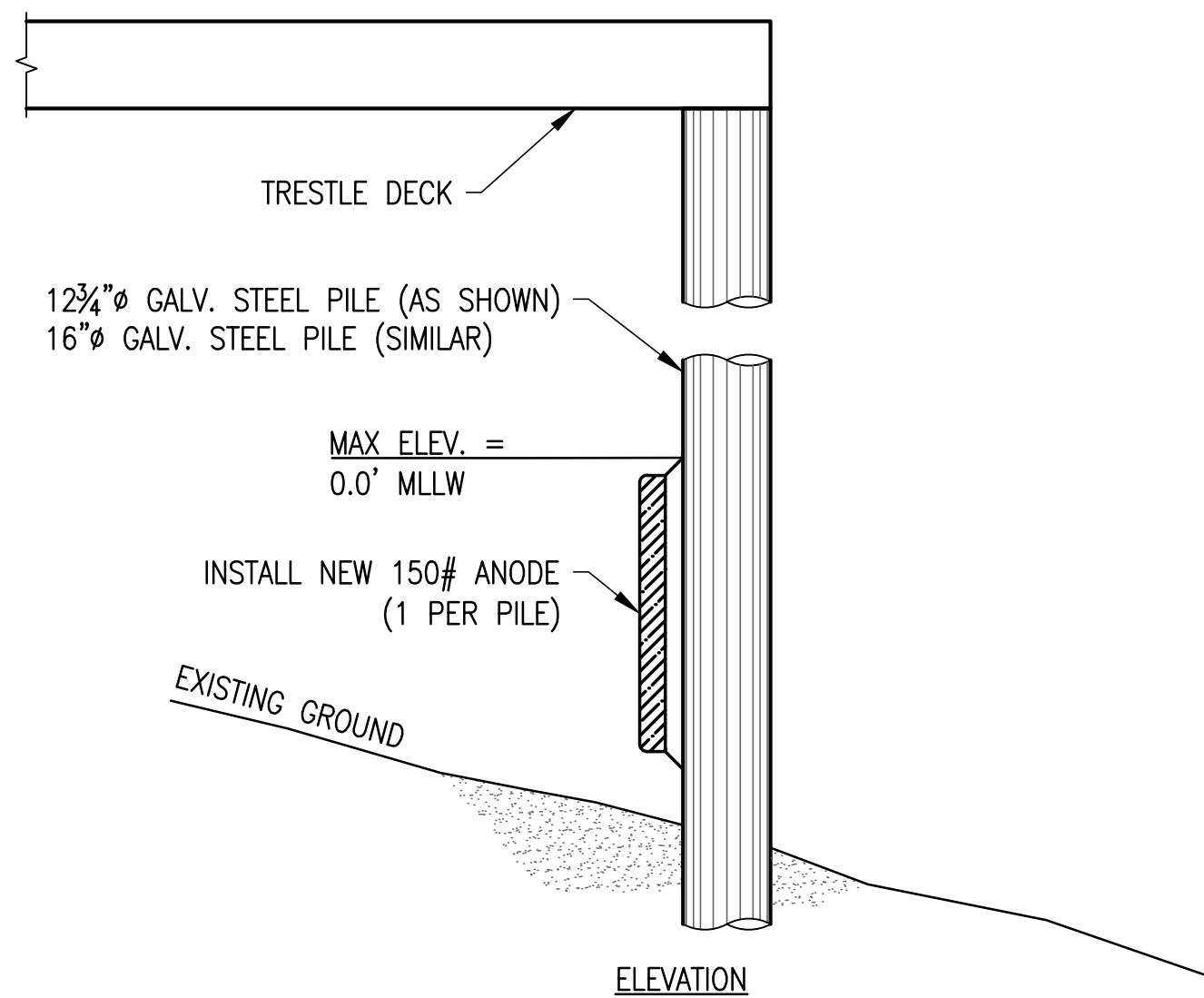
THE FOLLOWING SUBMITTALS ARE SPECIFIC TO THIS TASK ORDER. ADDITIONAL SUBMITTALS ARE REQUIRED AND ARE OUTLINED IN THE GENERAL NOTES.

- SCHEDULE AND WORK PLAN
- MANUFACTURER CERTIFICATE OF CONFORMITY
- CERTIFICATES OF INSURANCE INCLUDING US HARBOR AND LONGSHOREMAN'S ACT COVERAGE
- METALLURGICAL ANALYSIS ON SAMPLES FROM EACH HEAT OR BATCH OF ANODES USED ON THIS PROJECT. THE CONTRACTOR SHALL ALSO SUBMIT A MANUFACTURER'S DATA SHEET OUTLINING THE CURRENT OUTPUT, CONSUMPTION RATE, AND OPEN CIRCUIT POTENTIAL OF THE ANODES.
- DIVER CERTIFICATIONS INCLUDING ASSOCIATION OF DIVING CONTRACTORS INTERNATIONAL (ADCI) COMMERCIAL DIVING CERTIFICATION
- WELDING CERTIFICATIONS INCLUDING WE WELDING TO AWS D3.6-2017 CLASS B STANDARDS AND AWS D1.1 FOR THE POSITION AND PROCEDURE PERFORMED
- HALF-CELL SURVEY BEFORE AND AFTER CONSTRUCTION AND LETTER REPORT PREPARED BY A CERTIFIED NACE LEVEL II CATHODIC PROTECTION TECHNICIAN OR HIGHER
- VIDEO OF UNDERWATER INSPECTION OF THE COMPLETED INSTALLATION. VIDEO SHALL BE SUBMITTED ON A CD OR OTHER APPROVED ELECTRONIC MEDIA
- AS-BUILT DRAWINGS DOCUMENTING THE LOCATION OF ALL ANODES INSTALLED



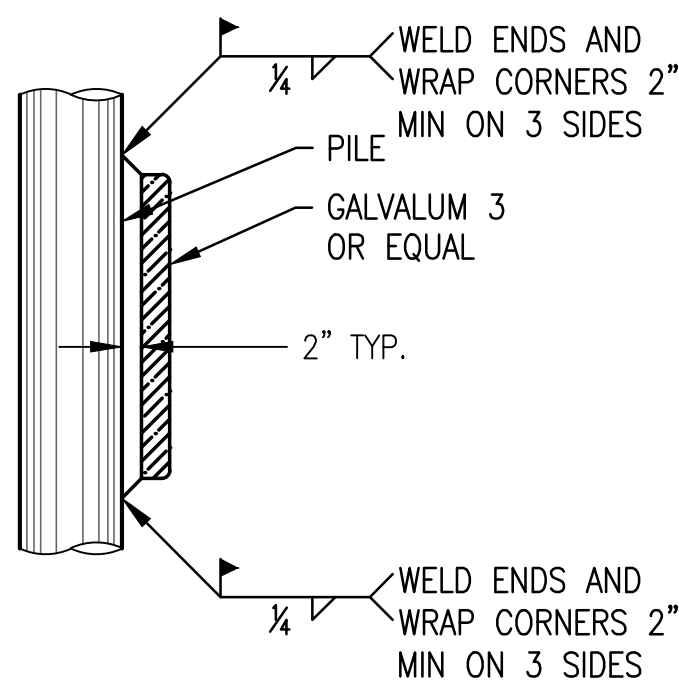
**TYPICAL 12-3/4"Ø FLOAT PILE  
(16"Ø FLOAT PILE SIMILAR)**

Scale: NTS



**TYPICAL 12-3/4"Ø TRESTLE PILE  
(16"Ø TRESTLE PILE SIMILAR)**

Scale: NTS

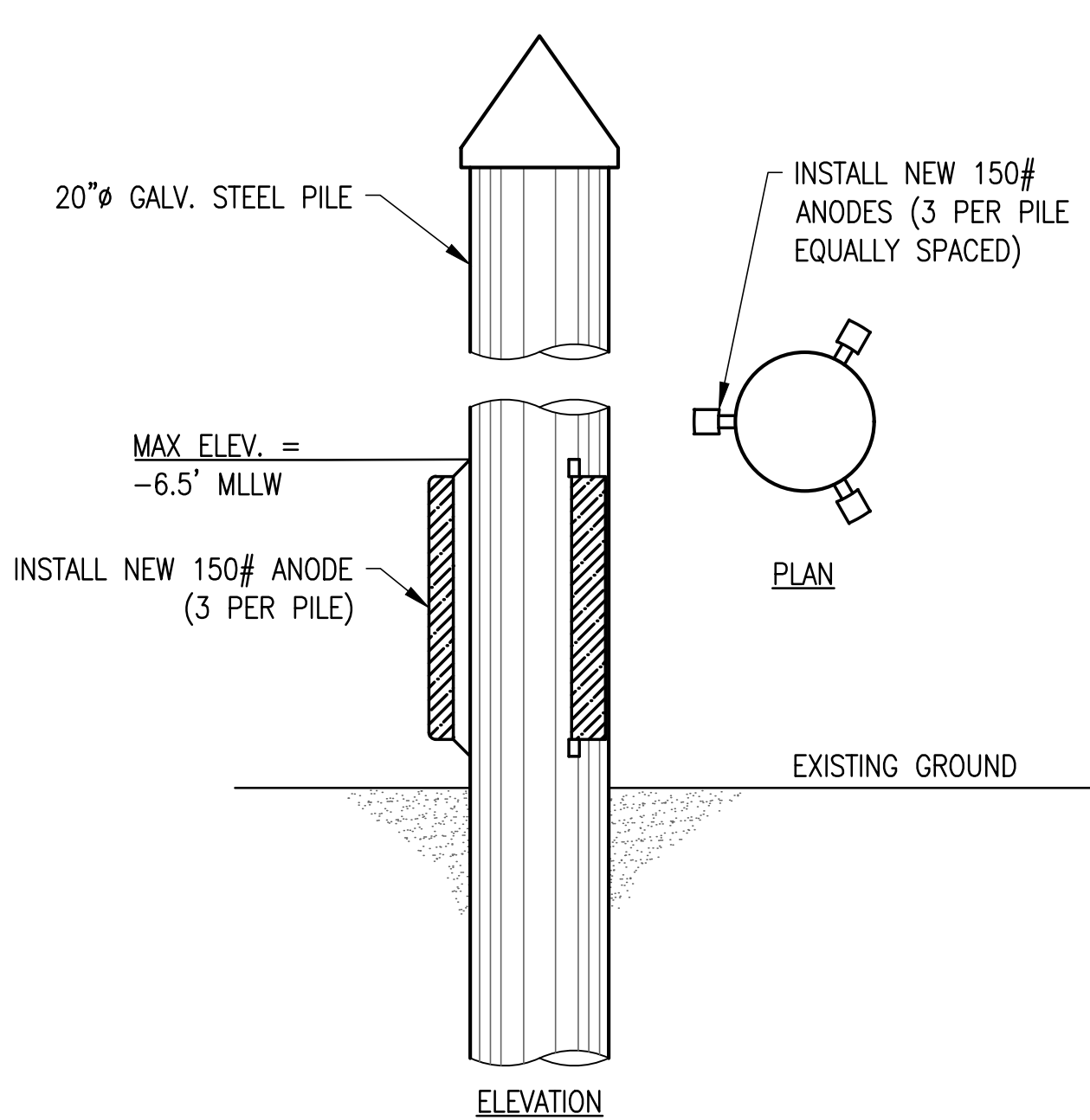


**TYPICAL ANODE INSTALLATION DETAIL**

Scale: NTS

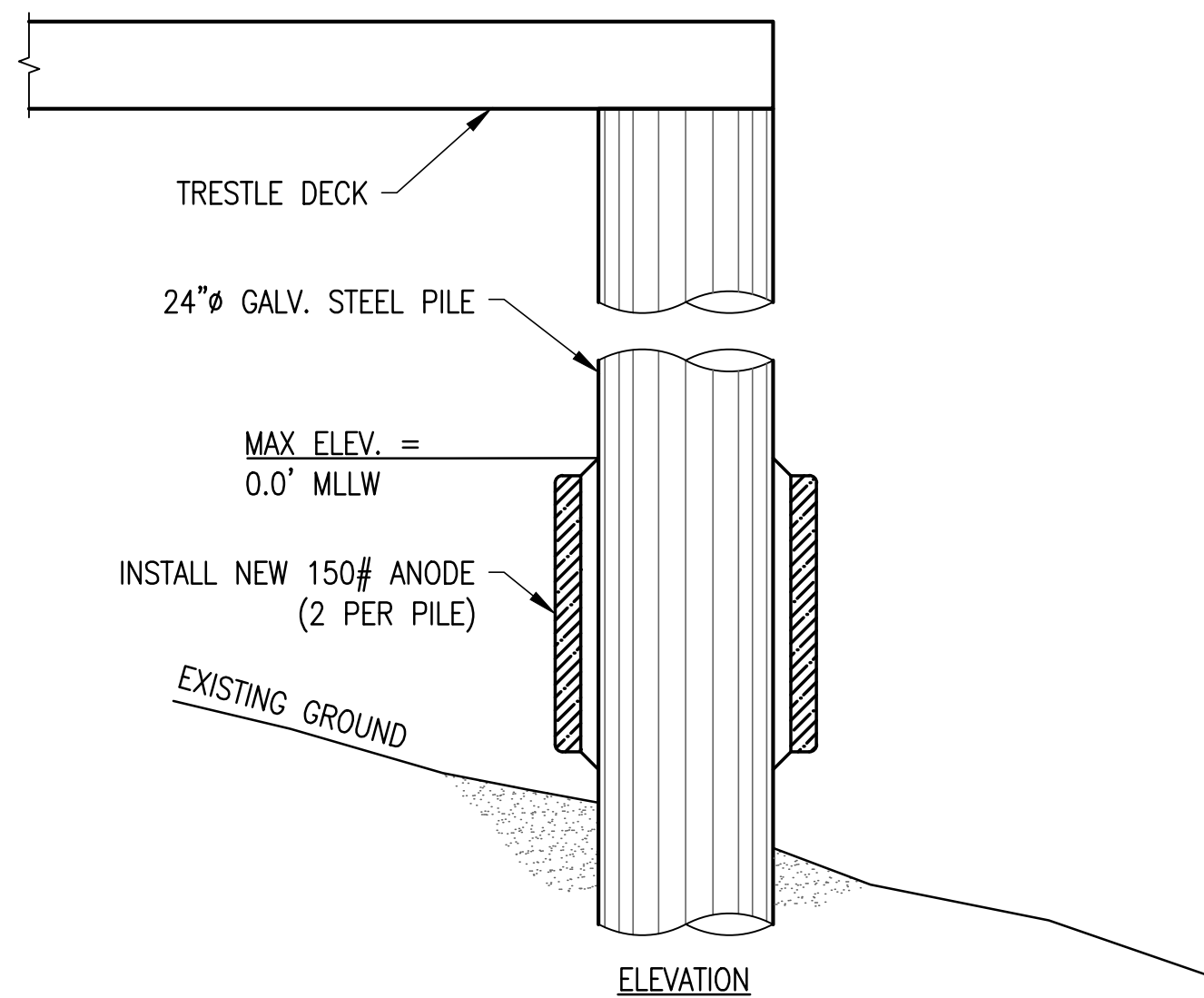
### NOTES:

- INSTALL TWO EA. 150 LB ANODES PER 12 3/4"Ø FLOAT PILING.
- INSTALL TWO EA. 150 LB ANODES PER 16"Ø FLOAT PILING.
- INSTALL THREE EA. 150 LB ANODES PER 20"Ø FLOAT PILING.
- INSTALL ONE EA. 150 LB ANODES PER 12 3/4"Ø TRESTLE PILING.
- INSTALL ONE EA. 150 LB ANODES PER 16"Ø TRESTLE PILING.
- INSTALL TWO EA. 150 LB ANODES PER 24"Ø TRESTLE PILING.
- WEIGHT SHALL BE ANODE MATERIAL NOT INCLUDING MOUNTING TAB.
- TOP OF INSTALLED ANODE SHALL BE NO HIGHER THAN ELEV  $-6.5'$ .
- ANODES SHALL BE INSTALLED BY AN ADCI CERTIFIED DIVER. WET WELD TO AWS D3.6 CLASS B STANDARDS.
- IT IS ACCEPTABLE TO OMIT THE END WELD ON THE CONDITION WHERE THE MOUNTING TAB IS AT THE SEA FLOOR. THIS MAY OCCUR ON CERTAIN PILES IN SHALLOW WATER. A MINIMUM OF 2 INCHES OF SIDE WELD ON THESE TABS IS REQUIRED.



**TYPICAL 20"Ø FLOAT PILE**

Scale: NTS



**TYPICAL 24"Ø TRESTLE PILE**

Scale: NTS

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City of Homer  
HOMER BOAT HARBOR  
CATHODIC PROTECTION



No.	Description	Date
1	DRAWING UPDATE	2022.09.06

Drawn By:	Checked By:
CEH	TG

Date:  
**SEPTEMBER 8, 2022**

Project No:  
**2532.01**

SHEET TITLE:  
GENERAL NOTES AND  
ANODE DETAILS

SHEET NO:  
**2 OF 3**

**G2**



